PATENT ABSTRACTS OF JAPAN

(11) Publication number: 03028721 A

(43) Date of publication of application: 06.02.91

(51) Int. CI

G01F 23/24 G01F 11/06

(21) Application number: 01164292

(22) Date of filing: 26.06.89

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(54) LEVEL GAUGE AND PRECISE METERING INSTRUMENT THE INCLUDING LEVEL GAUGE

(57) Abstract:

PURPOSE: To remove the limitation of applicable liquid and to improve the metering accuracy by installing a thermistor, which is fed with a current large enough for heat self-generation at all times, at an inspection part as a liquid level sensor.

CONSTITUTION: The liquid level sensor 4 is constituted by covering the tip of the thermistor 4a which is used normally as a temperature measuring element with a covering part 11 of glass. Prior to metering operation, the thermistor 4a is fed with a large current which is much larger, i.e. 10 - 100 times as large as when the thermistor is used as a temperature measuring element to heat itself. Namely, the temperature difference between the liquid to be metered and the thermistor 4a is increased to improve the reproducibility of the detection of the liquid level. Namely, the liquid level reaches the covering part 11 of the thermistor 4 to cause a rise in the terminal voltage of the thermistor 4 (when the resistance value of the thermistor is a negative temperature coefficient type), which is utilized for the detection, but if the temperature

difference is deficient, the resistance has no remarkable variation.

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